

INPUT  
Annual Presentation for  
University of California

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**Downsizing Information Systems Program**  
(UIISP)

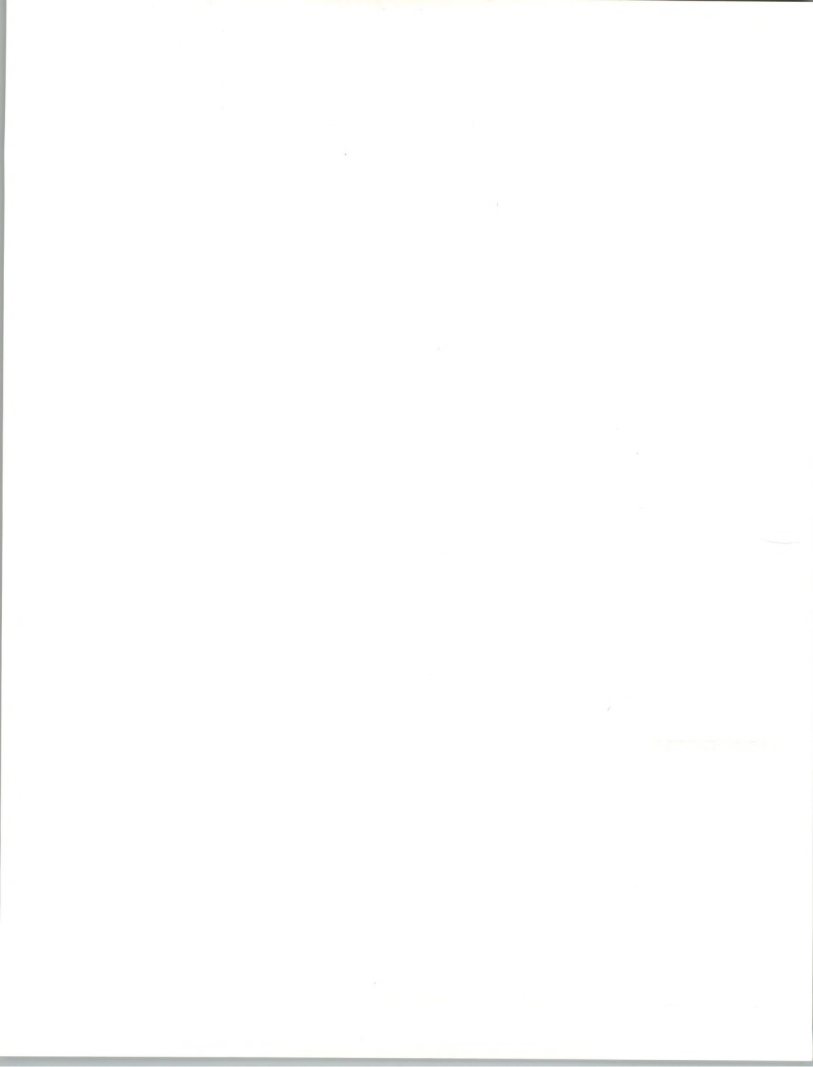
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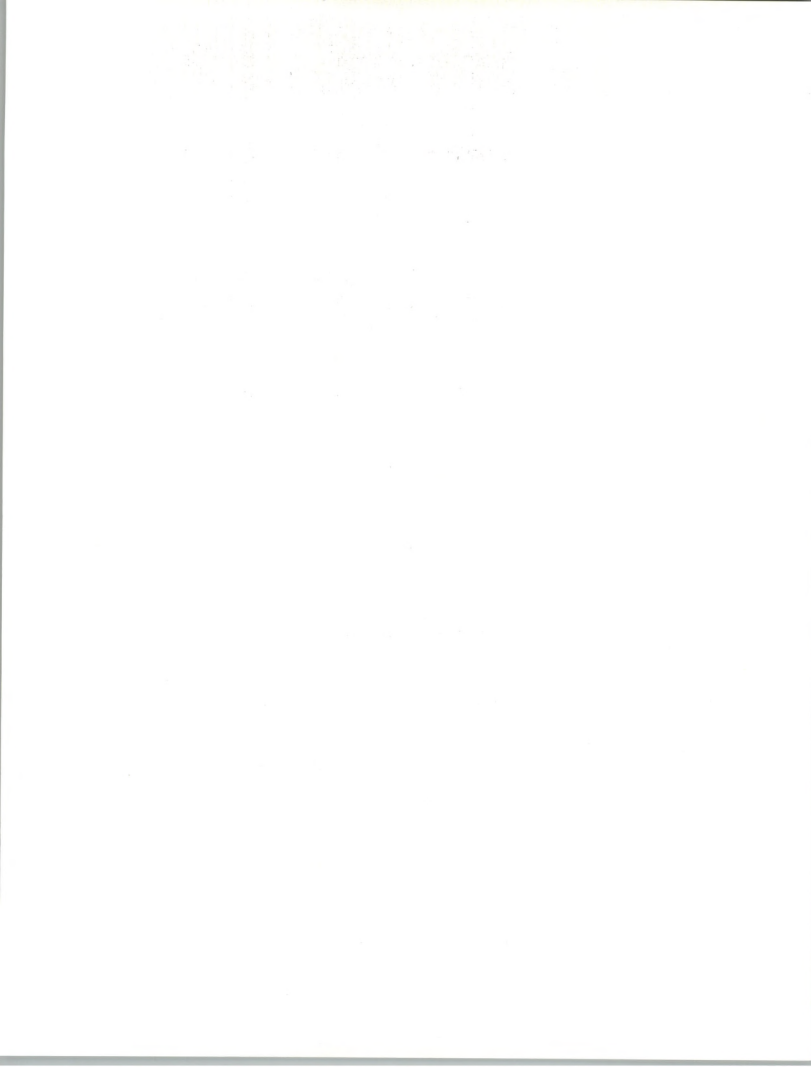
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Presentation Outline  
University of California  
INPUT, September 10, 1992

- Downsizing
  - Current User Views
  - Vendor Positions
  - INPUT Conclusions
- Open Systems Update
  - Classes of Downsizing
  - User Plans and Timing
  - Benefits
  - Issues
- Image Processing
  - Driving and Inhibiting Forces
  - Major Trends
  - Futures









Downsizing

# Revolution and Opportunities

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ID- 4

Notes



Downsizing

## Types of Downsizing

- Platform driven
- Application driven
- Organization driven

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ID- 5

Notes



Downsizing

## Platform Driven Description

- Replacement of the core processing capability (platform) on a price/performance basis.

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Downsizing

## Platform Driven Technologies Supporting

- SQL servers
- RISC
- Cooperative processing
- LANs—client/servers
- Open systems

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Downsizing

## Platform Driven Driving Forces

- Price/performance
- Costs
- Purchased applications
- Ease of use of technology
- Reaction time

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Notes



Downsizing

## Application Driven Description

- Transfer of the application, either user interface or all, to a workstation or LAN environment.

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Downsizing

## Application Driven Technologies Supporting

- SQL
- Client/server
- Distributed data base management systems
- LANs—client/servers

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Notes



Downsizing

## Application Driven Driving Forces

- User involvement in application development
- Re-engineering of business processes
- Many information technologies
- Proving IS can be cost effective

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Notes





Downsizing

## Application Driven—Example

- Executive Information System
  - LAN-based server
  - SQL data base
  - PC interface—user can customize
  - Structured interfaces to operational data bases

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ID- 12

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Downsizing

## Organization Driven Description

- The role of information systems becomes focused on advising and consulting, not performing.

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Downsizing

## Organization Driven Driving Forces

- Re-engineering of the total organization
- User involvement in IS process
- IS performance problems
- Client/server and RISC technology

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Downsizing

## Downsizing Plans

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12/24/91





Downsizing

## Survey

- Information systems executives
- Information services vendors
- Same questions
  - What are the underlying issues?
  - What will be the rate of progress?
- Goal - Is there conflict or confusion?

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Downsizing

## Platform Attributes

Question: Rank the platforms  
for each of the attributes.

Mainframe

Minicomputer

RISC

Personal computer

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Downsizing

## Platform Attributes

- Agreement on mainframe & PC
- Confusion on minicomputer and RISC
  - Vendors favor RISC
  - Users favor minicomputers

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Downsizing

## Application and Data Base Plans

Question: Where is each  
application or data base planned  
to reside in 1991 and 1995?

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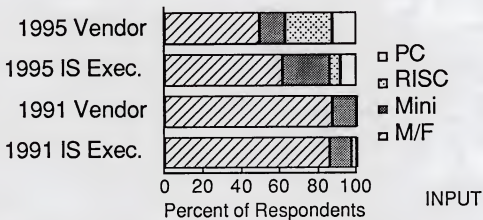
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Downsizing

## Data Bases Plans— Finance/Accounting



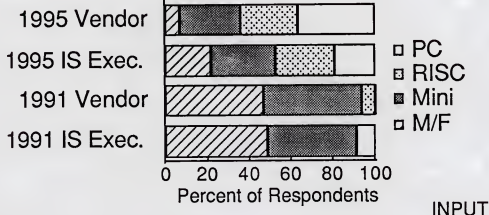
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## Application Plans— Production



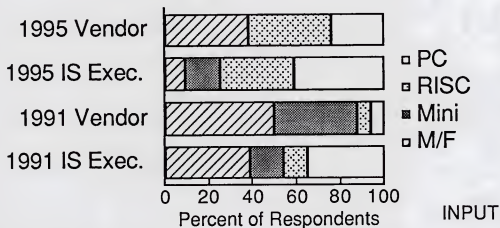
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Downsizing

## Application Plans— Image Processing



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Downsizing

## Plans

Question: When will the statement  
apply to IS infrastructure?

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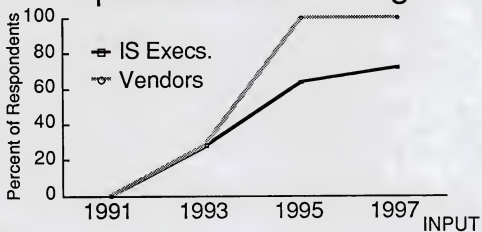
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# Downsizing Major Client/Server Applications Implementation Timing



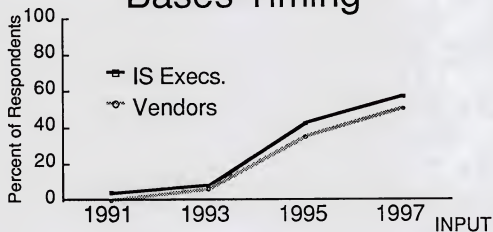
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## Significant Distributed Data Bases Timing



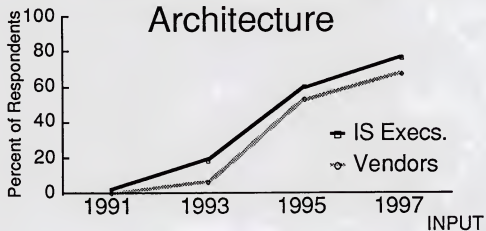
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Downsizing

## Timing of Cooperative Processing As Primary IS Architecture



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Downsizing

## Issues

- Information Systems
  - Shifting underlying technology
  - Re-engineering without losing data integrity
  - Managing the transition
  - Buying from new vendors

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Downsizing

## Conclusions

- Confusion—but many plans
- IS execs. and vendors do not agree
- Vendor investment will drive direction
- *Technology* = revolution
- *Implementation* = evolution

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ID- 53

Notes



Downsizing

## Conclusions

- Information systems
  - Basis for re-engineering/re-investment
  - Does not negate role of IS
  - Opportunity to provide real ROI
  - Opportunity to market increased IT benefits

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ID- 54

Notes



## Conclusions

- Vendors more optimistic than buyers
- Some applications will lead
- Data bases move more slowly than applications

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Notes



# What Is An “Open System”?

IO-3

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## Open Systems Are Not

- Technology based
  - MVS
  - UNIX
  - Code generators
- Access to applications software

IO-8

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Notes



## Open Systems Are

- Supported by standards
- Supported by de facto standards
  - MS/DOS or Windows
  - 386 processor
- Function oriented
  - Portable, interoperable
- Vendor independent

IO-9

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Notes



## Portability—Definition

Data bases and applications can be moved from one operating environment to another with little or no modification.

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UIISP-DT2 - 10

Notes



## Interoperability—Definition

Related to portability - applications and data that can be moved from one environment to another can also interact with each other

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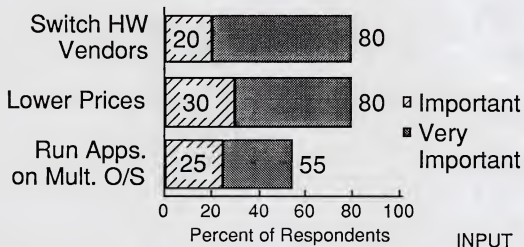
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## Benefits of Interoperability



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Notes



# Barriers to Open Systems Acceptance

IO-16

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Notes



## Significant Barriers

Barrier	Ranking
Conflicting standards	4.2
Lack of standards	3.7
Non-standard implementations	3.6
Lack of in-house skills	3.5

1=Low, 5=High

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Notes



## Less Significant Barriers

Barrier	Ranking
Lack of package applications	3.3
UNIX applications suitability	3.2
Lack of development tools	2.8
Lack of consultants	2.7
Lack of systems software	2.7

1=Low, 5=High

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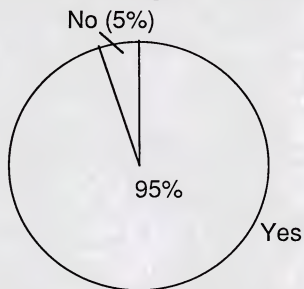
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Notes





## Benefits Outweigh Problems?



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Notes



## Expected Open Systems Benefits

- Longer lived applications
- Fewer technology-caused modifications
- Reduced training—user and developer
- Reduced technology risks due to portability

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Notes



## Conclusions

- "Open Systems"  $\neq$  UNIX
- UNIX and OS/2 are undermined by sponsor conflicts
- Intel chips/MS-DOS = happy medium

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Notes



## Conclusions

- UNIX value has been hardware based
- CASE and DBMS technology can lock in user
- Optimized environment not really open

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Notes





## Conclusions

- Balance between open and value-added
- Users may not want true open systems
- Some vendors will go out of business
- Alliances will be a large factor

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Notes



## Open Systems

- Removes shield of proprietary technology
- Strengthens networking capabilities
- Removes price protection
- Changes the competitive rules

IO-45

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Notes



# Image Processing

IP-1

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Notes



## Electronic Imaging Driving Forces

- Business competition
- Decreasing system costs
- Increasing document management costs
- Productivity/quality
- Regulatory compliance

IP-21

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Notes





## Electronic Imaging Inhibiting Factors

- System cost
- Lack of image awareness
- Lack of standards
- Work flow redesign
- Product improvements needed

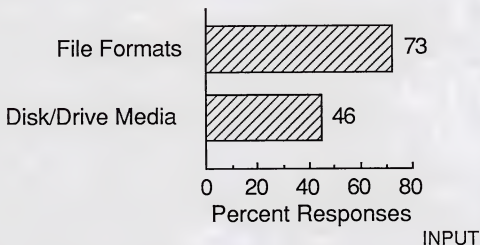
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## Image Standards Needed

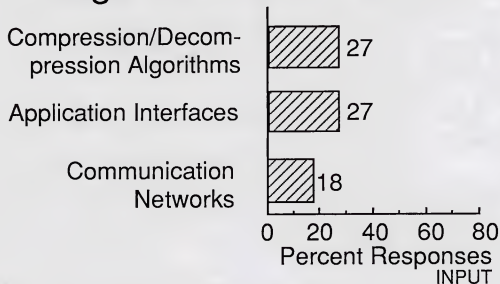


IP-17

Notes



## Image Standards Needed



IP-18

Notes



## Trends in Image Processing

- Initial acceptance of enterprise-wide systems
- Integrated data/text/image/voice document storage and retrieval systems
- Increasing use of fax technology

IP-6

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Notes





# Trends in Image Processing

- Integrated text and graphics scanning
- Standard platforms
- Applications-driven
- 'Image' as part of a total IS solution

IP-7

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Notes



## Evaluation Criteria

- System cost
- Technology availability
- Standards
- Communications costs
- Connectivity
- Business competition

IP-10

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Notes



## Image Justification Factor

Reason	Rank
Improved customer service	1
Improved records management	2
Personnel savings	3
Media storage savings	4
Space savings	5

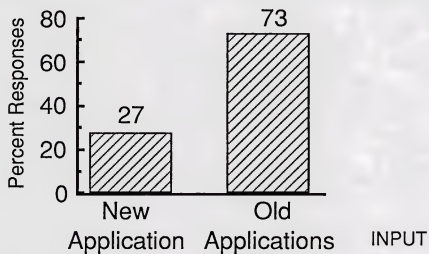
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IP-11

Notes



## Image Processing New Applications vs. Augmenting Old



IP-12

Notes





## Implementation Approach by Industry—New vs. Old

Industry	Percent	
	New	Augment Old
Banking/finance	42	58
Insurance	27	73
Medical	15	85
Transportation	11	89
State/local govt.	10	90

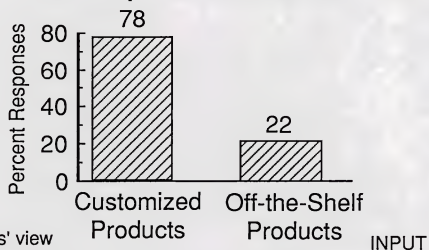
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Notes



## Product Customization Requirements



IP-15

Notes

Table 1. Mean (SD) age, height, weight, and body mass index (BMI) of the participants in each group

Group	Age (years)	Height (cm)	Weight (kg)	BMI (kg m <sup>-2</sup> )
Control	12.1 (0.4)	150.5 (6.2)	42.1 (10.2)	18.6 (3.2)
Low	12.1 (0.4)	150.5 (6.2)	38.5 (8.5)	17.0 (2.8)
High	12.1 (0.4)	150.5 (6.2)	45.5 (11.5)	20.2 (3.5)

Table 2. Mean (SD) age, height, weight, and body mass index (BMI) of the participants in each group at baseline and follow-up

Group	Age (years)	Height (cm)	Weight (kg)	BMI (kg m <sup>-2</sup> )
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Table 4. Mean (SD) age, height, weight, and body mass index (BMI) of the participants in each group at baseline and follow-up

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High	12.1 (0.4)	150.5 (6.2)	45.5 (11.5)	20.2 (3.5)

## Conclusions

- Imaging not new
- System costs high
- Permanent storage solution
- Customer service motivation
- Standards necessary
- Applications not new
- Legal issue not solved

IP-32

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